

CLAIMES

1. A corundum crystal formed body comprising a platinum base material and a corundum crystal portion formed on the platinum base material.

2. The corundum crystal formed body according to claim 1, wherein the corundum crystal portion comprises a corundum crystal having at least one crystal face selected from the group consisting of a {113} face, a {012} face, a {104} face, a {110} face, a {101} face, a {116} face, a {211} face, a {122} face, a {214} face, a {100} face, a {125} face, a {223} face, a {131} face, and a {312} face.

3. The corundum crystal formed body according to claim 1, wherein the corundum crystal portion comprises a corundum crystal having a dominant crystal face other than a {001} face.

4. The corundum crystal formed body according to claim 2 or 3, wherein the corundum crystal is derived from a crystal having a hexagonally dipyramidal shape.

5. The corundum crystal formed body according to any one of claims 2 to 4, wherein the corundum crystal is colorless.

6. The corundum crystal formed body according to any

one of claims 2 to 4, wherein at least one kind of element selected from the group consisting of a chromium, an iron, a titanium, a nickel, a vanadium and a cobalt is added as a coloring component to the corundum crystal.

7. A process for producing a corundum crystal formed body, wherein a corundum crystal is formed on a platinum base material by a flux evaporation method of heating a sample containing a raw material and a flux to precipitate a crystal and grow the crystal by use of flux evaporation as driving force.

8. The process for producing a corundum crystal formed body according to claim 7, wherein the corundum crystal has a hexagonally dipyramidal shape as its base shape.

9. The process for producing a corundum crystal formed body according to claim 7 or 8, wherein the flux contains a molybdenum compound.

10. The process for producing a corundum crystal formed body according to claim 9, wherein the molybdenum compound is a molybdenum oxide, or a compound which is heated to generate the molybdenum oxide.

11. The process for producing a corundum crystal formed body according to claim 9 or 10, wherein the flux contains

an evaporation inhibitor

12. The process for producing a corundum crystal formed body according to claim 11, wherein the evaporation inhibitor is an alkali metal compound.

13. The process for producing a corundum crystal formed body according to claim 12, wherein the alkali metal compound is an alkali metal oxide, or a compound which is heated to generate the alkali metal oxide.

14. The process for producing a corundum crystal formed body according to claim 13, wherein a mol number of an alkali metal atom in the alkali metal compound is 40% or less by mol of a total mol number of the sample.

15. The process for producing a corundum crystal formed body according to any one of claims 7 to 14, wherein a mol number of the raw material is 10% or less by mol of a total mol number of the sample.